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A percepção dos profissionais de saúde em relação à higienização das mãos

Healthcare workers perception regarding hand hygiene

La percepción de los profesionales de la salud en relación con la higiene de manos

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ABSTRACT

Objective: To verify aspects related to the perception of healthcare workers regarding hand hygiene. **Methods:** Cross-sectional study in a emergency care unit at a university hospital in Belo Horizonte. A structured questionnaire was applied to nursing and medical staff. The statistic program SPSS was used, descriptive and univariate analysis were made. **Results:** Healthcare workers attributed as high the impact of infections on clinical evolution of patients and the effectiveness of hand hygiene in controlling those infections. The rate for self-reported compliance to hand hygiene was 76.0% for the nursing staff and 72.5% for medical staff, but lower than 60.0% for coworkers. **Conclusions:** Healthcare workers perceive hand hygiene as an effective measure to control infection and recognize that compliance rates of hand hygiene among health teams in general are low.

Descriptors: Hand Hygiene, Hospital Infection, Health Personnel

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RESUMO

Objetivo: Verificar os aspectos relacionados à percepção dos profissionais de saúde em relação à higienização das mãos. **Métodos:** Estudo transversal, realizado em uma unidade de pronto-atendimento de um hospital universitário de Belo Horizonte. Foi aplicado um questionário estruturado aos profissionais de enfermagem e da equipe médica. Utilizou-se o programa estatístico SPSS, realizou-se análise descritiva e univariada. **Resultados:** Os profissionais de saúde atribuem como alto o impacto das infecções na evolução clínica dos pacientes e a eficácia da higiene de mãos no controle destas. A taxa auto-reportada para adesão à higiene de mãos foi de 76% para a equipe de enfermagem e 72,5% para a equipe médica, porém, inferiores a 60% para os colegas de trabalho. **Conclusões:** Os profissionais percebem a HM como uma medida eficaz de controle de infecção e reconhecem que as taxas de adesão das equipes de saúde em geral, são baixas.

Descritores: Higiene de Mãos, Infecção Hospitalar, Pessoal de Saúde

RESUMEN

Objetivo: Verificar los aspectos relacionados con la percepción de los profesionales de salud con respecto a higiene de las manos. **Métodos:** Estudio transversal en un servicio de emergencia de un hospital universitario de Belo Horizonte. Un cuestionario estructurado fue aplicado para los profesionales de enfermería y médicos. Se utilizó el programa estadístico SPSS, hubo análisis descriptivo y univariante. **Resultados:** Los profesionales de salud atribuyen alto impacto para las infecciones en la evolución clínica de los pacientes y alta la eficacia de la higiene de manos en el control de estas infecciones. La tasa de adherencia auto-reportada a la higiene de manos fue 76,0% para el personal de enfermería y 72,5% para el personal médico, sin embargo, inferior a 60,0% para los compañeros de trabajo. **Conclusiones:** Los profesionales perciben la higiene de las manos como una medida efectiva para controlar la infección y reconocen que las tasas de adherencia de los equipos de salud en general son bajas.

Descriptores: Higiene de las Manos, Infección Hospitalaria, Personal de la Salud

INTRODUCTION

The healthcare associated infections (HAIs) are considered a serious public health problem due to its high prevalence and the consequences of personal, economic and social order that have an impact both for patients and for health institutions.¹⁻²

In an unacceptable quantitative recognition context of occurrence of infections related to health assistance and, above all, the high mortality related to such events, considered to be adverse and arising from the care provided to patients, is that a number of initiatives to contain, reduce and prevent these cases have been proposed worldwide by the World Health Organization (WHO).¹

Hand hygiene (HH) stands out among the measures of prevention and control of infections related to health assistance (HAIs), due to its convenience, low cost and greater benefit, being the subject of the first WHO global challenge, called “*Clean Care is Safer Care*”.^{1,3}

Based on the importance of HH, research evaluating the knowledge and attitude of health professionals reveal that

these generally are aware of the importance of HH on the control of communicable diseases and the times when it must be implemented. However, a gap between theory and practice is observed, since the rates of adherence to hand hygiene remain low, both nationally and internationally, and rarely exceed 50%.⁴⁻⁸

In Brazil, there are few reports about hand hygiene, mainly describing how health professionals realize the importance of this practice in the control of infections related to health assistance. Thus, this study aimed to verify the aspects related to the perception of health professionals with regard to hand hygiene, in a unit of emergency care.

METHODS

This was a cross-sectional study carried out in a unit of emergency care at a university hospital, public and of tertiary care in Belo Horizonte.

Were part of the study population all professionals in the medical and nursing staff, who provided direct patient care during the period of data collection (August-October 2013). Professionals from other categories were excluded due to the small quantity of these in the research sector.

Data collection was performed by students of scientific initiation, previously trained in the basic concepts of hygiene, as well as techniques for questionnaires application.

We used a structured questionnaire, adapted from WHO, containing questions regarding socio-demographic characteristics of the professional (gender, age, marital status), data concerning the work (professional category, training time, time acting in the institution and in the industry, shift work, type of employment) and information relating to HH (training in the last year, availability of alcohol, knowledge of HAI rate in the industry, the impact of HAIs in the patient's outcome, effectiveness of HH, priority of HH by management of the institution, measures to consider effective to raise the adherence rates to HH by health professionals, adherence rate of team work, self reported rate and type of HH done more often).

The questionnaires were applied individually, filled by the interviewer during the working hours of the health professional, after agreeing to participate and signing the Free and Informed Consent Term (TCLE).

The data were tabulated and analyzed using the Statistical Package for Social Sciences (SPSS) version 19.0. Descriptive analysis was performed using absolute values and percentages for categorical variables and averages, minimum and maximum values and standard deviation for numeric variables. For univariate analysis, we used the t student test for numerical variables. A 95% confidence interval was considered with a significance index of 0,05.

The project has been approved by the Research Ethics Committee of the institution under ETIC: 398,796, observing the Resolution 466/12 for research on human subjects.

RESULTS

The subjects were 30 health professionals. Most of these were female (73.3%). The average age was 33 years, the most prevalent marital status was single (46.7%), followed by married (43.3%) and divorced (10.0%).

Regarding the professional category, most respondents were nursing technicians (60.0%), followed by doctors (26.7%) and, finally, nurses (13.3%). The average training time was 6.9 years, working in the institution 5.8 years and 1.5 years in the unit.

With regard to the work shift, thirteen (43.3%) professionals were working in the morning, ten (33.3%) in the afternoon, and seven (23.3%) reported being on-call. Most practitioners were recruited (56.7%) and the remainder entered through an admission examination.

In relation to training on HH, 53.3% of the respondents reported having received some kind of training in the last year. Most (96.7%) of the professionals confirmed there was alcoholic preparation for HH available in the unit under study.

On the impact of HAIs in the clinical evolution of the patient, 76.7% of professionals consider this high or very high, 90% consider the HH effective or very effective to control them. For 60% of the professionals, of all matters relating to patient safety, hand hygiene has high or very high priority by management of the institution.

As for the measures that could be effective in improving compliance rates among health professionals, Table 1 shows the results obtained.

Table 1 - Measures that could be effective in improving compliance rates among health professionals. Belo Horizonte, 2013

Measure	Very effective (%)	Effective (%)	Somewhat effective (%)	Not effective (%)
Involvement of leaders	23,3	53,3	13,3	10,0
Ethanol availability	40,0	36,7	13,3	10,0
Availability of posters	43,4	33,3	23,3	0,0
Theoretical training with professionals*	33,3	36,7	20,0	3,3
Provision of written protocols	20,0	66,7	13,3	0,0
Feedback on adherence rates to HH	30,0	26,7	23,3	20,0
Impact of a colleague who performs HH properly	13,3	56,7	23,3	6,7
Involvement of patients	30,0	26,7	23,3	20,0

*3,3% of professionals did not inform their opinion.

Regarding the importance that the boss, colleagues or patients give to the fact that the professional conduct HH, Table 2 summarizes the results found.

Table 2 - Professional perception regarding the importance that the boss, colleagues or patients give to the act of HH. Belo Horizonte, 2013

	None	Few	Moderate	Very
Boss	16,7	26,7	26,7	43,3
Colleagues	20,0	43,3	26,7	10,0
Patient	13,3	30,0	33,3	23,3

*3,3% of professionals did not inform their opinion.

When asked if it would be necessary some effort to operationalize the HH act appropriately, referring to the displacement to the sink or the dispenser of alcohol, carrying out the correct technique or intolerance to the products used, 33.3% of professionals reported being required a lot of effort, 30.0% moderate effort, 3.3% little effort 33.3% and no effort.

It has been questioned to professionals how they perceived the occurrence of HAIs in the sector studied, joining the HH by professionals (medical staff and nursing staff) and self-reported adherence to HH, being asked to estimate these values in percentage (between 0 to 100%). The results are shown in Table 3, by the average, maximum and minimum, and standard deviation.

Table 3 - Infection rates, adherence to HH by the medical and nursing staff and self reported, estimated by health professionals. Belo Horizonte, 2013

Rates	Average	Minimum	Maximum	Standard deviation
Infection	46,4	5	100	27,46
Adherence to HH by the nursing staff	58,8	20	90	17,98
Adherence to HH by the medical team	43,6	0	99	26,21
Self reported adherence to HH	75,1	30	100	18,17

We conducted an analysis of these estimates presented in Table 3 according to the professional category. There was statistical difference with regard to adherence to HH by the nursing staff, and the own nursing staff considered having a higher rate of HH than the rate estimated by doctors (Table 4).

Table 4 - Rates self-reported by medical and nursing staff regarding their perception of infection and HH adherence in the Emergency Unit. Belo Horizonte, 2013

	Nursing staff (22)	Medical team (8)	
Rates	Average(%)	Average(%)	p
Infection	49,5	37,8	0,308
Adherence to HH by the nursing staff	64,6	43,1	0,002
Adherence to HH by the medical team	43,4	44,4	0,927
Self reported adherence to HH	76,0	72,5	0,719

Finally, the type of HH reported that professionals make more often, regardless of the care time, was simple hygiene with soap and water (46.7%), followed by rubbing with antiseptic alcohol (43.3%) and simple cleaning with soap and water and then rubbing with antiseptic alcohol (10.0%).

DISCUSSION

It was observed in this study, as well as in another study already reported in the literature, that the professional category that has the most direct contact with patients is the nursing staff, followed by medical staff.⁹ Nursing, by its own inherent characteristics of the profession, is in touch 24 hours a day with patients and touching them with a high frequency to achieve the basic life care.¹⁰ This fact justifies the greatest number of respondents of the nursing category.

With regard to the impact of HAIs in the clinical evolution of patients and the effectiveness of HH in reducing HAIs, most professionals said to be high or very high, indicating that they have knowledge about this aspect, which is in accordance with a finding in a similar study.⁹

Periodic trainings on HH are essential to raise the adherence rates. However, just over 50% of the study participants reported having received some kind of training in the last year, not being evaluated by this study the quality and comprehensiveness of these trainings. Some studies indicate that professionals are aware of the importance of HH and on techniques and moments when it must be implemented, so the training should be dynamic and targeted mainly to the awareness of professional and not only the transmission of information.^{9,11-12} There are few reports of studies in Brazil that use dynamic or recreational training, most of them use the traditional form of knowledge transmission.¹³⁻¹⁴

Another factor influencing the low adherence rate to HH by professionals is the lack of adequate physical structure.^{9,15} Despite the professionals reporting that there is availability of alcoholic preparation in the unit of study, it was observed

that this preparation is not always close to the patient's bedside, and in some wards in which they had six beds, there was only one delivery point of the alcohol preparation, which could influence the adherence rates. Some international studies show that the ease of access to supplies for HH have a positive influence on results.¹⁶⁻¹⁷

It is noteworthy that the involvement of leaders has had a positive impact on improving the adherence rate to HH.^{18,19} In this paper, most professionals considered as high or very high the importance given by the direct management for HH. In Brazil, there are no studies investigating how managers and leaders of institutions have made this encouragement of HH, which is an unusual culture.

Among the measures questioned to professionals to being effective to improve the HH by professionals, it is emphasized that all had most professionals considering them as effective or very effective (over 50%).

The measures most frequently cited as very effective were availability of alcohol and posters near the bed of the patient and availability of posters about HH. These measures are among the most commonly used and have been described in the literature as effective and simple to be made.^{16-17,20-21}

However, some measures that are used in Brazil with a lower frequency, such as the feedback¹⁴ and the involvement of patients, were the least cited as very effective or effective, and the most that appeared as ineffective. Such measures have achieved positive results internationally.^{19,21-23} However, it highlights the importance of local culture and the need to understand this process of involvement of their own professionals and patients in co-responsibility for the safety of the patient.

Still, professionals do not consider that the patient attaches importance to the act of HH, which can also be explained by the characteristics of the study hospital's clientele, which is 100% SUS. Officials believe that the boss gives most importance to the fact of undertaking the HH than colleagues and patients.

Most respondents considered to be necessary high or moderate effort to operationalize the act of HH, with regard to the displacement to the sink or dispenser of alcohol, carrying out the correct technique and intolerance to products used. The fact that professionals need to make an effort to proper perform HH, indicates that this practice is not a habit for professionals, which may hinder its implementation routinely, resulting in low adherence rates.

With regard to the types of HH, professionals reported doing simple HH, with the use of soap and water, on substantially the same frequency with which they carry out antiseptic rubbing with alcohol use. A study conducted in Brazil,⁹ in 2013, shows that professionals use more soap and water when compared to the use of alcohol. In studies conducted in Turkey and Italy, nursing and medical students also reported using soap and water more often than alcohol.¹¹⁻¹² It is observed that the professionals generally have a greater tendency for the use of simple HH, since they

have a better understanding of handwashing, especially in tropical countries.²⁴

Currently, it is known that the use of alcohol to replace water and soap brings some advantages to health professionals who would facilitate the effort required to HH, such as: effectiveness of alcohol is greater, less time spent (in both displacement and to performing the technique itself) and also a lower skin irritation when used glycerin alcohol.²⁴⁻²⁶ Thus, in Brazil, there is an obligation required by law on the provision of alcoholic preparations on the patient's bedside and in a visible and accessible place for professionals in all health services.²⁷

When asked how they perceived the occurrence of HAIs in percentage terms in the industry, there was a wide range in responses, indicating that professionals do not have access to this type of feedback, possibly leading them to interpret the occurrence of IRAS and bacterial resistance by the very perception of severity of the patients who they attend. In addition, it is inferred that these professionals, when reporting high rates of infection, consider their own attitudes as being risky and not being effective in preventing infection.

With regard to adherence rates to HH, it was observed that the professionals reported lower rates for their coworkers (both in the same professional category, as different professional category) compared to the self-reported rate. In this context, the professional's judgment was appropriate considering its adhesion as opposed to the other, inferred below expectations. This is consistent in the sense that the other always needs to invest more in improvements in the procedure than the professional interviewed.

Moreover, the fact that professionals evaluate the accession of the professional category to which they belong as superior to others may be related to corporatism, implying a tacit agreement.

However, one should take into consideration that self-reported rates bring itself a limitation to provide socially acceptable answers, which do not always depict reality. Especially when the importance of such claims of professionals HH become difficult to recognize the need for personal improvement, or believe they give their contribution efficiently and effectively.

Although HH is a topic discussed for more than 150 years among health professionals, however, a lot of research on the perception of professionals with regard to this practice still need to be performed. Low adherence of professionals' HH has not been due the lack of knowledge of them on the relevance and impact of HH as an efficient measure to prevent HAIs and spread of resistant microorganisms, but the difficulty of perceiving and understanding risk behaviors.

CONCLUSION

Given the results found in this study, it was found that in the emergency room of a large hospital, health professionals attribute high impact of HAIs in the clinical evolution of patients and the effectiveness of HH on the reduction and control of these infections.

Still, some measures mentioned in the literature as effective to increase adoption rates to the HH, such as the involvement of leaders and patients and feedback were considered in most cases to be highly effective or effective for the improvement of HH of the sector under study.

However, these professionals, despite pointing the self-reported adherence to HH as high rates when compared to other professionals, their perception of the accession of the other is always less than their own.

Thus, it is evident the importance of continuing sending efforts to uncover the aspects related to adherence to HH in the multidisciplinary team in future studies, especially for those who can establish the relationship between the difference of knowledge and behavior with regard to the HH.

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